

Dirt: Who Needs It?

Materials

- Paper towel
- Clear plastic wrap
- One type of seeds
- Dropper
- Water

Objective

Introduce hydroponics and seed structure

Suggested grades

4-7

Alaska Standards


Science, A 14 a-c; B 1-4; D 1-2

Terms to define

nutrients
growing medium
hydroponics
emerging



This project presented by
Alaska Agriculture in the

 Classroom
through funding
from the Alaska Division of
Agriculture and
the Alaska
Farm Bureau.

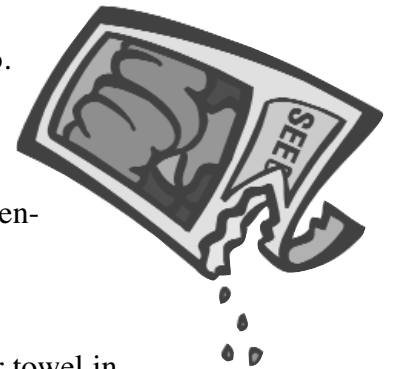
For information,
visit

www.agclassroom.org/ak



Introduction

Do plants really need soil to grow? No. But they do need nutrients and some sort of medium (material) to help them stay moist. Growing plants without soil is called hydroponics. Hydroponics is most often used in greenhouses where experimental planting is done.



Directions

Instead of dirt, you will be using paper towel in which to sprout your seeds. Use the plastic wrap to make some sort of container, then use your paper towel anyway you'd like to make the "soil." Water your seeds, cover your container and place it where you think your seeds will grow the best.

This is a competition. Each of you will work individually. You will record in your notebooks how you prepared and planted your seeds, where your container is located in relation to the windows, etc., and how much water you are giving it. Each day you will check the seed and record any changes, e.g., if you moved it away from the window or gave it more water.

The first student to have a sprouting seed wins.

Follow-up activities

Have students dissect their seeds to see how far in development they were. What factors may have contributed to some seeds doing better than others? Compare notes to look for clues.

Have students draw the emerging plants, labeling their parts.

Variation

Plant seeds in used tea bags instead of soil disks. Discuss how seeds can get adequate nutrients for sprouting from the tea bags.

Related websites

<http://www.growingedge.com/kids/>

<http://www.hydroponics.com/jack/index.html>

*Conceptual credit: Jenise Merens, 2000 Louisiana
AITC Teacher of the Year*

